Hypothermia Electrolyte Protocol - Regression Models

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1. Initial Potassium, All Variables

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 4.42 [3.75, 5.08] | <0.001 |
| Age | -0.00 [-0.01, 0.00] | 0.453 |
| Initial.rhythmPEA | -0.03 [-0.27, 0.20] | 0.770 |
| Initial.rhythmvfib | 0.10 [-0.15, 0.34] | 0.427 |
| Initial.rhythmvtach | 0.01 [-0.45, 0.46] | 0.975 |
| APACHE.II\_>=31 | -0.07 [-0.68, 0.53] | 0.806 |
| APACHE.II\_16-20 | -0.10 [-0.73, 0.53] | 0.754 |
| APACHE.II\_21-25 | -0.14 [-0.73, 0.45] | 0.630 |
| APACHE.II\_26-30 | -0.25 [-0.84, 0.34] | 0.403 |
| SOFA\_>=15 | 0.38 [-0.12, 0.88] | 0.139 |
| SOFA\_10-12 | 0.52 [0.22, 0.81] | 0.001 |
| SOFA\_13-14 | 0.43 [0.06, 0.80] | 0.022 |
| SOFA\_7-9 | 0.25 [0.02, 0.47] | 0.031 |
| RIFLE1 | -0.34 [-0.68, -0.01] | 0.045 |
| RIFLE2 | -0.05 [-0.39, 0.29] | 0.785 |
| RIFLE3 | -0.22 [-0.45, 0.01] | 0.066 |
| RIFLE5 | -0.51 [-0.94, -0.08] | 0.021 |
| RRT.prior.to.arrestTRUE | NA [NA, NA] | 0.839 |
| SCr.on.admission | -0.01 [-0.05, 0.04] | <0.001 |

|  | **model statistics** |
| --- | --- |
| r.squared | 0.13256071 |
| adj.r.squared | 0.05197892 |
| sigma | 0.61835495 |
| statistic | 1.64504548 |
| p.value | 0.05705706 |
| df | 18.00000000 |
| logLik | -179.15864037 |
| AIC | 396.31728075 |
| BIC | 459.08007400 |
| deviance | 69.97240011 |
| df.residual | 183.00000000 |

1. Initial Potassium, Backwards Stepwise

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 4.18 [3.98, 4.39] | <0.001 |
| SOFA\_>=15 | 0.35 [-0.11, 0.82] | 0.137 |
| SOFA\_10-12 | 0.48 [0.21, 0.74] | <0.001 |
| SOFA\_13-14 | 0.45 [0.11, 0.79] | 0.009 |
| SOFA\_7-9 | 0.23 [0.01, 0.44] | 0.040 |
| RIFLE1 | -0.36 [-0.68, -0.05] | 0.025 |
| RIFLE2 | -0.04 [-0.37, 0.29] | 0.806 |
| RIFLE3 | -0.24 [-0.45, -0.02] | 0.035 |
| RIFLE5 | -0.48 [-0.82, -0.14] | 0.006 |

|  | **model statistics** |
| --- | --- |
| r.squared | 1.076892e-01 |
| adj.r.squared | 7.050956e-02 |
| sigma | 6.122817e-01 |
| statistic | 2.896457e+00 |
| p.value | 4.534927e-03 |
| df | 9.000000e+00 |
| logLik | -1.819997e+02 |
| AIC | 3.839994e+02 |
| BIC | 4.170324e+02 |
| deviance | 7.197867e+01 |
| df.residual | 1.920000e+02 |

1. Initial Magnesium, All Variables

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 1.87 [1.49, 2.25] | <0.001 |
| Age | 0.00 [-0.00, 0.00] | 0.871 |
| Initial.rhythmPEA | 0.17 [0.03, 0.30] | 0.014 |
| Initial.rhythmvfib | 0.19 [0.04, 0.33] | 0.010 |
| Initial.rhythmvtach | 0.35 [0.09, 0.61] | 0.009 |
| APACHE.II\_>=31 | -0.12 [-0.46, 0.23] | 0.507 |
| APACHE.II\_16-20 | -0.16 [-0.51, 0.20] | 0.392 |
| APACHE.II\_21-25 | -0.15 [-0.48, 0.19] | 0.386 |
| APACHE.II\_26-30 | -0.12 [-0.46, 0.21] | 0.473 |
| SOFA\_>=15 | -0.27 [-0.55, 0.02] | 0.069 |
| SOFA\_10-12 | -0.18 [-0.35, -0.01] | 0.040 |
| SOFA\_13-14 | -0.03 [-0.24, 0.18] | 0.790 |
| SOFA\_7-9 | -0.07 [-0.19, 0.06] | 0.310 |
| RIFLE1 | -0.05 [-0.24, 0.15] | 0.641 |
| RIFLE2 | -0.06 [-0.26, 0.14] | 0.544 |
| RIFLE3 | 0.13 [-0.00, 0.26] | 0.057 |
| RIFLE5 | 0.15 [-0.10, 0.40] | 0.251 |
| RRT.prior.to.arrestTRUE | NA [NA, NA] | 0.342 |
| SCr.on.admission | 0.01 [-0.01, 0.04] | <0.001 |

|  | **model statistics** |
| --- | --- |
| r.squared | 0.12232154 |
| adj.r.squared | 0.03896661 |
| sigma | 0.35156758 |
| statistic | 1.46747807 |
| p.value | 0.11113517 |
| df | 18.00000000 |
| logLik | -64.15822312 |
| AIC | 166.31644624 |
| BIC | 228.69731709 |
| deviance | 22.12435817 |
| df.residual | 179.00000000 |

1. Initial Magnesium, Backwards Stepwise

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 1.79 [1.69, 1.89] | <0.001 |
| Initial.rhythmPEA | 0.15 [0.02, 0.28] | 0.025 |
| Initial.rhythmvfib | 0.16 [0.03, 0.29] | 0.016 |
| Initial.rhythmvtach | 0.30 [0.04, 0.55] | 0.022 |

|  | **model statistics** |
| --- | --- |
| r.squared | 0.04554022 |
| adj.r.squared | 0.03070406 |
| sigma | 0.35307566 |
| statistic | 3.06954190 |
| p.value | 0.02904130 |
| df | 4.00000000 |
| logLik | -72.41894510 |
| AIC | 154.83789020 |
| BIC | 171.25390884 |
| deviance | 24.05984767 |
| df.residual | 193.00000000 |

1. Initial Phosphate, All Variables

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 3.56 [1.90, 5.22] | <0.001 |
| Age | -0.00 [-0.02, 0.01] | 0.960 |
| Initial.rhythmPEA | 0.09 [-0.49, 0.67] | 0.763 |
| Initial.rhythmvfib | 0.04 [-0.57, 0.66] | 0.897 |
| Initial.rhythmvtach | 0.38 [-0.75, 1.51] | 0.509 |
| APACHE.II\_>=31 | 0.01 [-1.48, 1.50] | 0.990 |
| APACHE.II\_16-20 | -0.24 [-1.80, 1.32] | 0.763 |
| APACHE.II\_21-25 | -0.47 [-1.93, 1.00] | 0.530 |
| APACHE.II\_26-30 | -0.16 [-1.63, 1.31] | 0.829 |
| SOFA\_>=15 | -0.68 [-1.93, 0.57] | 0.286 |
| SOFA\_10-12 | 0.20 [-0.55, 0.95] | 0.596 |
| SOFA\_13-14 | 0.32 [-0.61, 1.25] | 0.497 |
| SOFA\_7-9 | 0.16 [-0.40, 0.72] | 0.568 |
| RIFLE1 | -0.22 [-1.07, 0.63] | 0.607 |
| RIFLE2 | -0.34 [-1.20, 0.53] | 0.443 |
| RIFLE3 | 0.15 [-0.42, 0.73] | 0.597 |
| RIFLE5 | -0.92 [-2.02, 0.18] | 0.099 |
| RRT.prior.to.arrestTRUE | NA [NA, NA] | 0.029 |
| SCr.on.admission | 0.14 [0.01, 0.26] | <0.001 |

|  | **model statistics** |
| --- | --- |
| r.squared | 7.927441e-02 |
| adj.r.squared | -8.660056e-03 |
| sigma | 1.530885e+00 |
| statistic | 9.015169e-01 |
| p.value | 5.730561e-01 |
| df | 1.800000e+01 |
| logLik | -3.521373e+02 |
| AIC | 7.422746e+02 |
| BIC | 8.045588e+02 |
| deviance | 4.171624e+02 |
| df.residual | 1.780000e+02 |

1. Initial Phosphate, Backwards Stepwise

|  | **coef [confint]** | **p** |
| --- | --- | --- |
| (Intercept) | 3.58 [3.30, 3.87] | <0.001 |
| SCr.on.admission | 0.08 [-0.00, 0.17] | 0.058 |

|  | **model statistics** |
| --- | --- |
| r.squared | 0.01836501 |
| adj.r.squared | 0.01330503 |
| sigma | 1.51412454 |
| statistic | 3.62946620 |
| p.value | 0.05824411 |
| df | 2.00000000 |
| logLik | -358.41494743 |
| AIC | 722.82989486 |
| BIC | 732.66423884 |
| deviance | 444.75918339 |
| df.residual | 194.00000000 |

Citation

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To cite R in publications, use:

R Core Team (2016). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.